

Constantin Floros

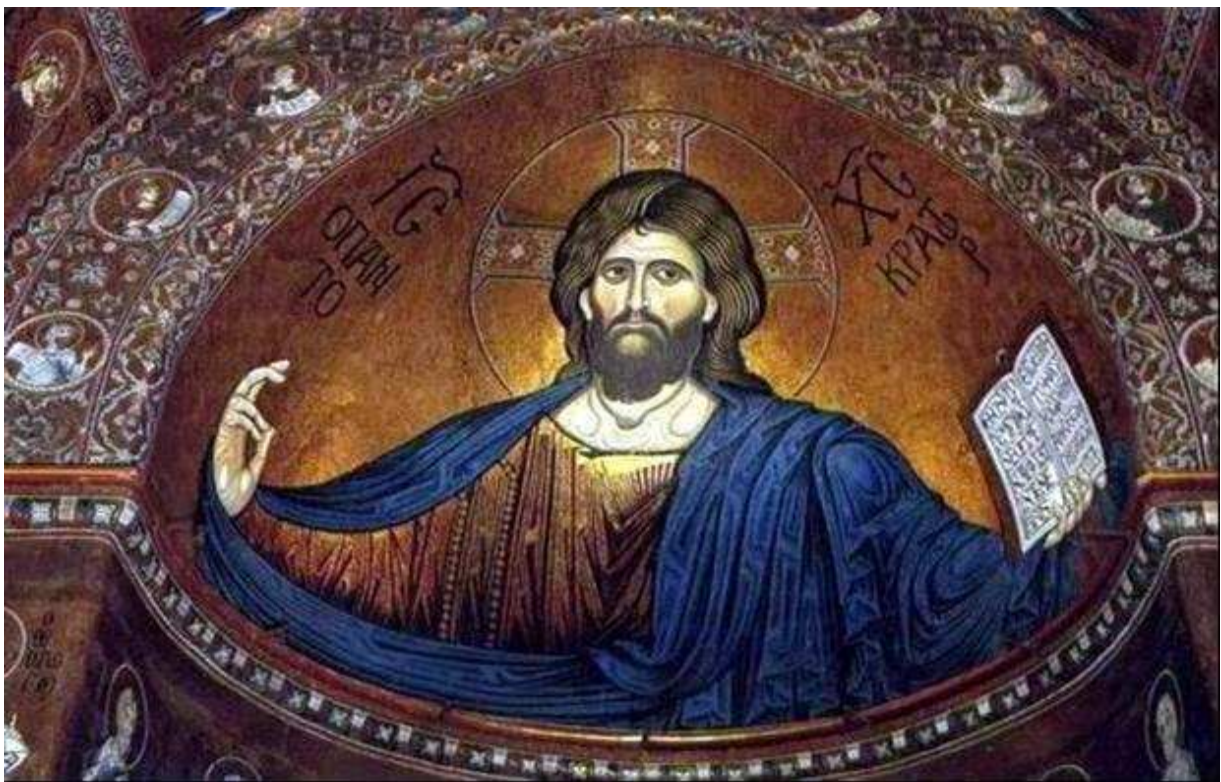
The Influence of Byzantine Music on the West

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It has long been recognized that Byzantine art exerted a significant influence on the West. This is particularly been shown to be the case on art history. The Byzantine dome as well as Byzantine mosaics and panel paintings inspired many artists in the West. One only needs to refer to the architecture of San Marco in Venice, to the mosaics of San Vitale in Ravenna and in the cathedral Santa Maria Nuova in Monreale (Sicily).



The eminently important question of the relationship of Latin to Byzantine neumatic notation has long been unclear – understandable because systematic comparative studies on the neumatic notations had not been undertaken. Every investigation of connections between Gregorian chant and Byzantine church music must give consideration to the fact that in the sixth, seventh and eighth centuries the closest relationships must have existed between Rome and Constantinople. First of all, it must be mentioned that papal Rome formed part of the Byzantine empire until about the middle of the eighth century. The exarchate established by Maurice in Ravenna, as the representative of the emperor, exercise political and military control over Italy.

The popes stood at least politically in subordination of Constantinople. Their election has to be confirmed by the emperor.

It is to be emphasized that the Roman and the Byzantine church, the papacy in Rome, and the patriarchate in Constantinople, saw themselves as a single entity until the middle of the eighth century. Several emperors maintained the principle of a common Church between Rome and Constantinople. Exactly in this time period several Syrians and Greeks occupied the Apostolic throne. It is a fact that the Iconoclast controversy was the reason for monks to flee from the Orient and reassemble in the Italian peninsula. In the eighth century nearly fifty thousand monks took refuge in Southern Italy.

During this time period numerous feasts, processions, and chants of the Byzantine rite were introduced into the Roman Church. The list of Greek liturgical texts which adapted, generally in a Latin translation, is long. As examples one need point to the processions in the feast of the Purification and of Palm Sunday, to the group of Hodie antiphons, to the chants of the *Adoratio crucis*, of the *Agnus dei*, or of the alleluias of the Easter vespers. In many cases not only the texts, but also the melodies, were adopted.

In the last decades the many-layered problem of the so-called Old Roman chant has been frequently the center of controversy. The melodies of this repertory differ inherently from those of Gregorian chant. It is worthy of note that an important source of the repertoire, the codex vaticanus lat. 5319, transmits several chants in Greek. All indications considered, it would appear that the peculiar Old Roman melodies were subject to a strong byzantine influence. We hear now the alleluia *O pimenon ton Israil prossexe*, a chant from the vespers of Easter Monday. It is interpreted by singers of the Ensemble *organum* under the direction of Marcel Pérès.

Political events led to a loosening of relationships between Rome and Constantinople after the Middle of the eighth century. In 751 Ravenna was conquered by the Lombards and Byzantine control over Italy fell apart. The endangered papacy turned to the developing Frankish state. Byzantine influence, nevertheless, undoubtedly played an important role in the music of Carolingian era. For instance, Emperor Constantine Copronymus presented King Pippin with an organ in 757.

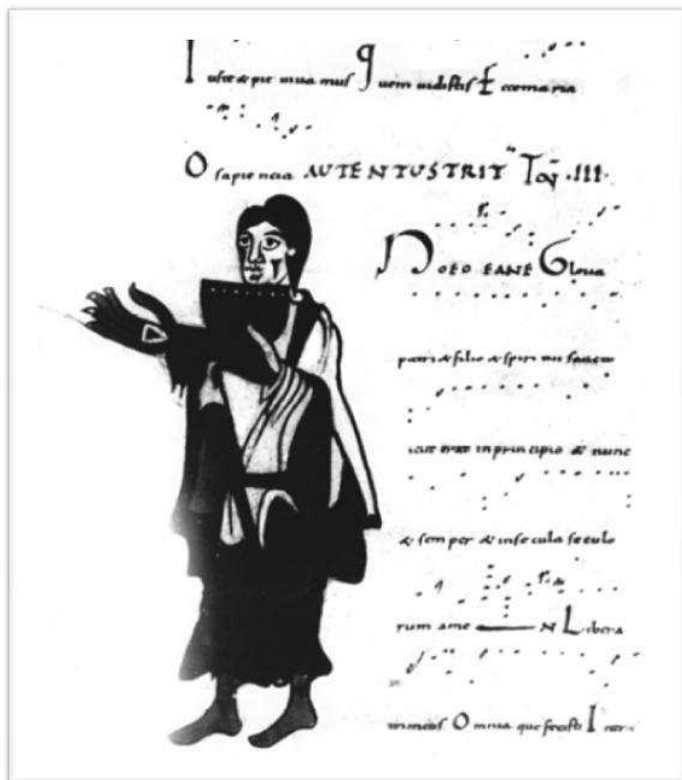
A Byzantine delegation then visited the court of Charlemagne in Aachen and brought an organ with them. According to other reports, Charlemagne ordered certain Greek chants translated into Latin and introduced in the liturgy.

Another event is of particular relevance for political history as well as for the cultural history in Europe, namely the schism of 867. The dissolution of the Church unity between Rome and Constantinople, the division of the Christian world into a Western and an Eastern Church, had as a consequence the political and cultural division of Christianity into two halves. It would not be an overstatement to say that the East-West cultural differences of modern Europe date from this schism.

Middle Latin music theory, as recorded in the works of Alcuin, Aurelian and *Musica enchiriadis* reveals an astonishing number of Greek terms. Of Byzantine origin are, first at all, the terms originally used to designate gregorian modes: *protus*, *deuterus*, *tritus*, *tetrardus*, *authenticus*, *plagius*, etc. Of Middle Greek derivation are also the syllables of numerous intonations (*echemata*) that appear in latin treatises as well in the music manuscripts.



Byzantine echema
of the first tone
with small doxology
Aquitanian neumes



Byzantine echema
of the third tone
with small doxology
Aquitanian neumes

Investigation of the medieval mode system led to new results concerning the dependence of middle Latin music theory on byzantine models. In contemporary music historical studies the idea had become entrenched to designate the modal system of the Middle Ages by the term octoechos. Based on study of the treatises and on modal analysis of the chants, however, it became clear that the modal system of the Middle Ages originally consisted of twelve modes.

Beside the four authentic modes and the four plagal modes, almost all Byzantine treatises list additional four medial modes (*mesoi*), derives from the plagioi. Numerous chants in Byzantine manuscripts were set in medial modes. Each medial mode had its own final and main tones, its own cadences, and each characteristic formulas.

My own comparative studies on the oldest Byzantine and Latin Notations caused an enormous sensation. Suddenly amazing connections between Byzantine Church music and the notation of Gregorian chant were exposed. Numerous Latin neumes and corresponding Byzantine signs (*semata*) proved to be onomatically, paleographically and semasiologically (semantically) related and in many cases identical.

Nothing is more characteristic for the nomenclature of the latin semeiography than the large number of Greek or Hellenistic termini which it contains. Nearly half of the nomina neumorum in the tables of neumes are Greek. If we want to comprehend this nomenclature, than we have to divide the names in accordance with their provenience and characteristics into five groups.

A. BORROWED WORDS FROM MIDDLE GREEK

<i>apostropha</i>	<i>apostrophos</i>
<i>distropha</i>	<i>dvo apostrophoi</i>
<i>(bistropha, strophicus)</i>	
<i>quilisma</i>	<i>kylisma</i> (roll)
<i>oriscus</i>	<i>iporoi</i> (outflow)

B. BORROWED TRANSLATIONS FROM MIDDLE GREEK

<i>punctum, punctus</i>	<i>kentema</i> (stab, prick)
<i>bipunctum</i>	<i>dvo kentemata</i> (two stabs)
<i>tripunctum</i>	<i>tria kentemata</i> (three stabs)
<i>flexa</i>	<i>perispomene</i> (the bent)
<i>scandicus</i>	<i>anabasma</i> (the ascending)
<i>porrectus</i>	<i>epegerma</i> (straighten up again)
<i>torculus</i>	<i>strepton</i> (the coiled)
<i>tremula</i>	<i>tromikon, tremulikon</i> (tremble)
<i>pes quassus</i>	<i>seisma</i> (shake)
<i>salicus</i>	<i>choreuma</i> (dance figure)
<i>pressus</i>	<i>piasma</i> (squeeze)
<i>franculus</i>	<i>klasma</i> (break)
<i>semitonus</i>	<i>hemitonion</i> (the half voiced)
<i>semivocalis</i>	<i>hemiphonon</i> (the half voiced)
<i>equaliter</i>	<i>ison</i> (same, even)
<i>supra</i>	<i>ano</i> (above)
<i>sursum, altius, levare</i>	<i>psele</i> (high, higher)
<i>humiliter, iusum, inferius</i>	<i>chamele</i> (low, deeper)
<i>deprimatur</i>	<i>bathy</i> (deep)
<i>mediocriter</i>	<i>oligon</i> (a little)
<i>mediocriter</i>	<i>meson</i> (middle level)
(in the sense of <i>medio, medialiter</i>)	
<i>cito vel celeriter</i>	<i>gorgon</i> (fast)
<i>tenere</i>	<i>kratema</i> (hold)
<i>a</i> ("augere"?)	<i>argon</i> (slow)

C. ORIGINAL LATIN NOMINA

virga, virgula (staff, little stick)
bivirga (two sticks)
pes, podatus (the foot, "the footed")
gutturalis (the throaty)
sinuosa (curved)
gradatus, agradatus, gradata, gradicus ("the stepped")
pendula (the outstretched)
triangulata (the triangular)

D. HELENENISTIC AND CLASSICAL GREEK NOMINA

<i>cephalicus</i>	κεφαλικός (the headed)
<i>climis</i>	from κλίνω (bend, tilt)
<i>climacus</i>	from κλίμαξ (ladder)
<i>eptaphonus</i>	επτάφωνος (the seven stepped)
<i>pentaphonus</i>	πεντάφωνος (the five stepped)
<i>gnomo</i>	γνώμων (pointer, angular measure)
<i>proslambanomenon</i>	προσλαμβανόμενον (the additional)
<i>trigon</i>	τρίγωνον (triangle)
<i>trigonicus</i>	τριγωνικός (the triangular)
<i>igon, ygon</i>	perhaps "διγώνον" (the biplane)
<i>tetradius</i>	τετράδιος, τετραοίδιος (the four part)
<i>pentadicon</i>	"πενταδικόν" (the five part)
<i>orix</i>	from ὀρυγμα, ὀρυξις (trench, pit, drill)
<i>bisticus</i>	"δίστικτος" (δύο στιγμαί) (two points)
<i>tragicon</i>	τραγικόν (the tragic)
<i>diainius</i>	from διαίνω (moisten)
<i>exon</i>	from ἕξ (six)
<i>hypodicus</i>	υπόδικος (the accused)
<i>atticus</i>	ἀττικός (the Attic)

I assign to the first group of nomina those words which were borrowed from Middle Greek. A second group is comprised of nomina neumarum that have been proven to be translations of borrowed middle greek words. The third group comprises nomina that are original Latin labels. The fourth group is comprised of nomina that can be spoken of as hellenized word formations. Finally a fifth group encompasses nomina of which the etymology can be judged to be problematic.

The medieval classification of the Latin neumatic repertory comprises five classes and has the advantage that it is compatible with the typology of the Paleobyzantine signs:

1. neumae simplices (tonoi haploi);
2. neumae compositae (tonoi synthetoi);
3. ornamental neumes;
4. notae semivocales (hemiphona);
5. litterae significativae (grammata).

While the four groups comprise neumes, form the litterae significativae an auxiliary script for neumatic notation. Since the adiaستمatic neumes did not fixe the tone level and the rhythm with all possible exactitude, "significant letters" were added. They are abbreviations of certain words which more define precisely the melodic, rhythmic and technical indications. The number of letters used in the various manuscripts fluctuated in the different regional notations. In a letter of Notker from the year 912, the famous poet of St. Gall, twenty-three letters are compiled in an alphabet and discussed. The most frequently used letters are eight e. a, c, i, l, m, s and t.

The fact that the letters are auxiliary signs explains why they do not appear in all latin chant manuscripts. They occur most often in the St. Gall manuscripts, and it is noticeable that certain younger manuscripts contain incomparably more letters than the older manuscripts.

Various hypotheses have put forward the origin of significative letters. A new point of departure arises of the study of paleobyzantine grammata. My investigations brought proof that amazing correspondences exists between Latin and Paleobyzantine letter neumes. The most frequently used litterae and the most important grammata have similar meanings. There is every indication that the terms abbreviated with significative letters represent translations of the parallel greek expressions. In the following list the corresponding litterae and grammata are compared to one other.

1. Letters relating to Tone Level

e eq q	<i>equaliter</i>	IC	<i>ison</i> (same, even)
s	<i>sursum</i> (high)	ψ	<i>psele</i> (the high)
a	<i>altius</i> (higher)		
l	<i>levare</i> (raise)		
s	<i>supra</i> (above)	ΑΝΩ	<i>ano</i> (above)
h	<i>humiliter</i> (low)	χ	<i>chamile</i> (the low)
i	<i>iusum vel inferius</i> (low or lower)	ε	<i>elaphron</i> (the light)
d	<i>deprimatur</i> (depress)	ΒΘ	<i>bathy</i> (the deep)
m md	<i>mediocriter</i> (middle step) (a little)	με	<i>meson</i> (middle step)
		ολ	<i>oligon</i> (a little)

2. Letters relating to Rhythm

c	<i>cito vel celeriter</i> (quick or fast)	Γ	<i>gorgon</i> (fast)
t	<i>trahere vel tenere</i> (pull or hold)	κ κρ	<i>kratema</i> (hold)
a	("augere?") (extend)	Αργ	<i>argon</i> (slow)

3. Other Abbreviations

z	<i>zītise</i> (search)	ζτ	<i>ζήτει</i> (search)
sim	<i>similiter</i> (similar)	ομ	<i>homoion</i> (similar)
d dt	<i>duplicatur</i> (become doubled)		

With regard to the meaning of the significant letters the following can be said: The abbreviations e eq q (*equaliter*) and IC (*ison*) are fully equivalent as signs for a tonal repetition.

(572)

SG 42/8	/ - - - - - π / - - - - - π ✓ -
BG 9/17	/ - - - - - π / - - - - - π ✓ -
EN 39/12	/ - - - - - e π / - - - - - π ✓ -
EV 422	

Ex i it ser mo in ter fra tres,

(573)

SG 46/16	- - - - - - - - - - - - - - - - -
BG 11v/16	- - - - - - - - - - - - - - - - -
EN 53/7	- - - - - - - - - - - - - - - - -
EV 478	

Be ne di ctus Do mi nus

(574)

P 147v/14	> \ ✓ >> > ^{ICON} / > >
E 69/15	> > \ ✓ \ >> > \ > >
G 165v/17	

Το στο μα μου πλα τυ νον. ε πι τους ε χθρους μου

The letters s (sursum), a (altius), l (levare) and ψ (Psele) serve to indicate high or higher tones. They indicate not only the fourth or fifth, but also the third, and even the second. The abbreviations i (iusum), h (humiliter), d (deprimatur), χ (Chamele), ε (elaphron) and bathy all serve to indicate deeper or low lying tones. Thereby the letters can signify second or third as well as the fourth or fifth.

The following example demonstrates the equivalence of the grammalogues i and χ on the one hand and s and ψ on the other.

(589)

LN 68/7-8 

BG 29/15 

EN 147/13 

EV 561 

(590)

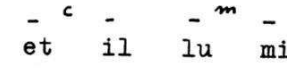
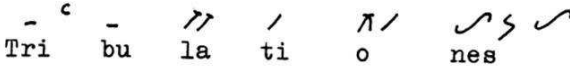
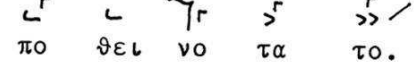
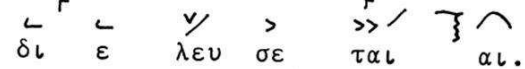
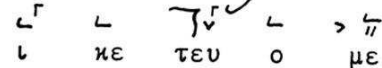
L2 80/5 

L3 89v/14 

D 266/10 




If we turn to the letters indicating tonal length, than we must first remark that the letters c (celeriter), m (mediocriter) and t (tenere) appear often in St. Gall manuscripts. With equivalent meaning, occure in paleobyzantine manuscripts the letters Γ (Gorgon), με (Meson) and κρ (Kratema). From a comparative study of the letter neumes c and Γ it is revealed that the c, in as far as it stands over a group of neumes and fulfills a position function, refers to not to a single tone, but to the whole group.

SG	46/5		et il lu mi (nare)
SG	68/7		Tri bu la ti o nes
E11	22/14		πο θει νο τα το. (ον)
E11	22/20		δι ε λευ σε ταλ αι.
E11	22v/18		κε τευ ο με (εν)




Comparing byzantine and latin notation we come to the conclusion that both had a partial stenographic character. Ornamental neumes like the byzantine thetas and the latin quilisma, pressus and generally speaking every sign based on the oriscus are considered as stenographic signs. My own research brought proof that the paleobyzantine Chartres-Anatrichisma, a sign with four or five curves, was the exact analogue to the latin quilisma. These signs not only appear to be identical or nearly identical, but they are also closed related semantically. There are even corresponding versions which fix exactly the same tonal figures!

The following example, which shows a nine-note quilisma figure, illustrates this. The figure is very often met in responsories of the second mode and “rolls” in a wavy line twice from re to fa stepwise up and down re-mi-fa-mi re- mi-fa-mi-re. The codices Bamberg and St. Gall 359 indicate it with a tractulus and two quilismata. It is amazing to find that this figure also appears almost note for note in Middle byzantine stichera. The paleobyzantine version of Codex Lavra Γ. 67 indicates the figure stenographically with the conjuncture of theta and petaste and with the anatrichisma, which is equivalent to the two Latin quilismata.

(480)

CH	7/12	- ~ . - ~ . - -
LN	18/8	~ ~ . ~ . ~
BG	5v/13	- ~ . ~ . -
SG	38/6	- ~ - ~ . -
EV	393	

(481)

L3	42v/16	- - - /	
Pa	193v/21	- - - / > + „ ~	
D	241/1		

ο συμ φω νου με νος.

Another important ornamental latin neume is the oriscus. It forms the characteristic element of numerous neumae compositae. My research led to the conclusion that the s-shaped sign exhibits the same shape as the byzantine syrma or hyporrhoe and it must have had a meaning related to it.

The oriscus and the Syrma or hyporrhoe are met in corresponding latin, byzantine and slavonic graphic forms which often indicate the same tonal figures.

The next example in St. Gall neumatic notation shows the graphic form pes subbipunctis cum orisco. It indicates the figure do-re-do-si – do. Reduced to the last four tones, this series of tones occurs very often in byzantine and slavonic chants indicated with the seisma figure.

Our example shows in the middle byzantine version the graphic form of the seisma with the hyporrhoe as the defining sign. The corresponding kondakarian graphics are composed of supported cross, hyporrhoe and parakalesma. The common notational symbol for the techniques recorded by the different graphic forms is the s-shaped sign.

(493)

GL 21/14	
BG 13/4	
EN 60/2	
MP 17/4	
EV 1182	

sa cer do ti i di gni tas

(494)

V 161/12	
UK 174v/2	

(εκηρυ) υ ττο ον.
(Προποβ) ΔΑ Α Α χΟΥ.

To sum up: It could be shown that the closest connexions existed between Paleobyzantine and Latin neumes. The relationship ranged much further than one had previously thought possible. Detailed onomatological, semeiographical and semasiological comparisons between corresponding neumes had led to the following conclusions:

1. The classification worked out for Latin neumes corresponds extremely with the typology of Paleobyzantine signs.
2. The terms used to designate Latin neumes and the significative letters are mostly borrowed words or borrowed translations from Middle Greek. Only a few of the usual standard neumes can be said to be original Latin formulations.
3. The Latin "accent neumes" share the same repertory of basic neumes with Paleobyzantine sources (especially with the signs of Chartres notation). There are no Latin root neumes without Paleobyzantine analogues. Also, most of the compound neumes can be set beside Byzantine parallels.
4. The synonymous related and graphically identical Paleobyzantine and Latin neumes are often semasiologically related or equivalent. The corresponding tone signs often possess the same or a similar melodic and rhythmic meaning. The same applies also to the relationship of the significative letters to Paleobyzantine grammata.
5. The corresponding Paleobyzantine and Latin *semata* often serve to indicate the same or similar figures, formulas and phrases. It has been established that there exists an astonishingly far-reaching common ground between Gregorian chant and the music of the Byzantine rite with regard to figures, formulas, incipits and cadences. In addition, occasionally Latin and Byzantine chants can be identified which reveal the same or a similar melodic ductus.

A fundamental difference between the Gregorian Chant and the Byzantine Music consists in the so-called *Ison*-technique. It is unknown in the practice of Gregorian Repertoire. There are however many indications that it was known in the early period of the old Roman Chant.

In this connexion it is remarkable that the Papal Chapel, the *Schola cantorum*, consisted of seven singers with the names *Prius Scholae*, *Secundus Scholae*, *Tertius Scholae*, *Archiparaphonista* and three further *paraphonistae*. What means the term *paraphonista*? It means one singer who sings beside the melody. This is perhaps an indication for the

performance of the Ison-technique. We hear now The Easter Alleluia *Pascha nostrum* in this art of performance.

GERMAN	LZ f.39v	- - - / 5
ALEMANIAN	SG p.107	- - - f 5
ALEMANIAN	GL p.76	- - - 5
GERMAN	BG f.40v	/ / f 5
ALEMANIAN	EN p.207	- e - f 5
LORRAINE (Metz) (Metz neumes)	LN p.103	~ ~ ~ 5
LORRAINE (Metz) (Metz neumes)	Laon 226 f. CXXXI	~ ~ ~ 5
BRETON	CH p.108	- - - / 5
NORTHERN FRANCE	MP p.119	5 5 g h k h l u l
NORTHERN ITALIAN	Verona CV f. 206	- - - J J ?
BENEVENTAN	BEN f.125v	c f
AQUITANIAN	YRX p.153 (h)	- - - / /
	EV S.779	Al le lu ia.

Bibliography

Constantin Floros: *Universale Neumenkunde*, 3 vols., Kassel 1970

__: *Introduction to Early Medieval Notation*. Enlarged Second Edition, Harmonie Park Press, Warren, Michigan 2005

__: *The Origins of Russian music. Introduction to the Kondakarian Notation*, Peter Lang, Frankfurt am Main 2009

__: *The Origins of western Notation*, Peter Lang, Frankfurt am Main 2011

Abstract

It has long been recognized that Byzantine art exerted a significant influence on the West. This is particularly been shown to be the case on art history. The eminently important question of the relationship of Latin to Byzantine neumatic notation has long been unclear – understandable because systematic comparative studies on the neumatic notations had not been undertaken.

Every investigation of connexions between gregorian chant and byzantine church music must give consideration to the fact that in the sixth, seventh and eighth centuries the closest relationships must have existed between Rome and Constantinople. During this time period numerous chants of byzantine rite were introduced into the Roman Church.

My own investigations caused an enormous sensation. Suddenly amazing connections between Byzantine Church music and the notation of Gregorian chant were exposed. Numerous Latin neumes and corresponding Byzantine signs (*semata*) proved to be onomatically, paleographically and semasiologically (semantically) related and in many cases identical.

The great number of names of Latin neumes have been shown to be borrowed words or borrowed translations from Middle Greek. The medieval classification of the Latin neumatic repertory comprise five classes and has the advantage that it is compatible with the typology of the Paleobyzantine signs: 1. *neumae simplices (tonoi haploi)*; 2. *neumae compositae (tonoi synthetoi)*; 3. ornamental neumes; 4. *notae semivocales (hemiphona)*, 5. *litterae significativae (grammata)*. The most frequently used *litterae* and the most important *grammata* have similar meanings. Comparing Byzantine and Latin notation we came to the conclusion that both had a partial stenographic character. Neumes like the *quilisma*, *pressus* and generally speaking every sign based on different forms of the *oriscus* are considered as stenographic signs. It could be shown that the closest connections existed between Paleobyzantine and Latin neumes.